

METHOD OF PREPARING PREFORMS FOR RTM MOLDING PROCESSES

ABSTRACT OF THE INVENTION

5 The present invention provides for a method of manufacturing a preform for a
RTM molding process that will increase both the handling capability of the preform
and the final part quality. The invention consists of applying a patterned
discontinuous layer of liquid resin over at least one side of a layer of reinforcing
10 fibers. The resin film can consist of a homogeneous liquid, an aqueous dispersion or
a melted resin applied at an elevated temperature. In one embodiment, there is
present a roller having a patterned surface. Liquid resin is applied to the surface of
the patterned roller via a second roller. The layer of reinforcing fibers is passed by
the roller in such a fashion that the resin from the pattern on the surface of the roller is
15 transferred to the layer of reinforcing fibers. The contact of the roller with the layer
of reinforcing fibers is sufficient to force some of the resin into the fibers themselves.
After the resin is applied, the layer of reinforcing fibers with resin is passed through
an additional process to cause the resin to turn into a solid flexible coating. The layer
of fiber is then wrapped onto a cardboard roll or similar type material and packaged
for storage or shipment.